

Off 1
JX-8P

36,000
preset programmable 6-voice polyphonic synthesizer

MIDI Musical Instrument Digital Interface

89.900 & 63.300



The JX-8P is velocity- and pressure-sensitive. Velocity information is used to control the DCO pitch, the mix balance between the DCO-1 and DCO-2, the VCF cutoff frequency, and the VCA level. Three levels of velocity-sensitivity can be selected. Pressure information is used to control the vibrato depth, the brilliance, or the volume. Even the slightest change in touch is reflected in the sound.

Two DCOs and, for the first time in this price range, two Envelope Generators are used to produce each voice. Other synthesizer elements, extensive modulation controls, and dynamics capability allow the JX-8P to produce more impressive sounds than ever before—from crystal-clear sounds to screaming sounds.

The JX-8P offers 64 preset patches including extremely thick string sounds, cross-modulated metallic sounds, a variety of special effect sounds, and many more. It can also store 32 programmable patches. In addition, the optional M-16C memory cartridge provides 32 programmable patches. A total of 128 patches can be instantly recalled even during a performance. The Edit function allows all patch parameters to be delicately controlled so as to modify a preset patch or to create a new patch. The optional PG-800 programmer can be used to facilitate editing.

The JX-8P offers yet one more amazing function: you can name the patch you created and store it in the JX-8P memory. When the patch is recalled, a newly developed FIP display spells out the patch name. The display also spells out the parameter name when it is edited. You can easily select the desired patch and recall the desired parameter even on a dark stage.

REAR PANEL



A new Patch Chain function allows the JX-8P to memorize up to 8 combinations of patch, key mode, whether the pressure information is activated or not, bend range, whether the portamento is activated or not, portamento time, LFO modulation depth, and whether the Unison Detune function is activated or not. These combinations can be recalled instantly. This function is especially effective for live performance.

In addition to these exciting features, the JX-8P offers full MIDI compatibility. It can be used as a master keyboard for any MIDI set-up and brings out the best in all connected MIDI instruments.

Despite its tremendous capabilities and attractive features, the JX-8P weighs only 11.5 kilograms.

SPECIFICATIONS

- Keyboard: 61 keys (5-octaves, C scale)
- Memories: 64 preset patches, 32 internal programmable patches, 32 external programmable patches (M-16C)
- Edit: Patch parameters, Patch Name, MIDI function, Master tune
- Touch Pad: Patch Select (1 to 32), Bank Select (Preset, Internal, Cartridge), Patch Chain (Store, Recall), Key Mode (Poly, Unison, Split, After Touch (vibrato, Brilliance, Volume), Copy (Cartridge to Memory, Memory to Cartridge)
- Controls: Volume, After Touch, Edit, Bend Range Select, Patch Select, LFO Level, Portamento Time, Portamento On/Off
- Display: 16-dot FIP display
- Memory Cartridge Holder: 1
- Jacks: Phone Output x 2 (Stereo, Mono), 7.5VDC Headphones (8Ω) control, Head Pad (DP-2), MIDI In, Out, Thru, 5-pin DIN Programmer In (5-pin DIN)
- Switches: Output Level (L, M, H), Memory Protect (On/Off)
- Dimensions: 317(W) x 309(D) x 210(H)mm (12.5" x 12.1" x 8.3")
- Weight: 11.5 kg (25.3 lb)
- Accessory: Connection cord x 2



PG-800

13,500

PROGRAMMER



The PG-800 is a programmer designed exclusively for use with the JX-8P. It facilitates creation of new patches and modification of preset patches. All JX-8P parameters can be controlled by the PG-800's sliding controls. Light and compact, the PG-800 neatly fits on top of the JX-8P and is held in place by a magnetic seat. It also comes complete with a carrying case.

SPECIFICATIONS

- DCO-1: Range (2', 4', 8', 16'), Waveform (S, L, T, F, J), Noise, Tune (±1 cent), Frequency Modulation (LFO, ENV), Dynamics Select (Off/1/2/3), Envelope Mode (A, V)
- DCO-2: Same as the DCO-1 plus Cross Modulation (Off/1/2/3) and Fine Tune
- Mixer: Level (DCO-1, DCO-2), Envelope Modulation, Dynamics Select (Off/1/2/3), Envelope Mode (A, V)
- HPF: On/Off
- VCF: Cutoff Frequency, Resonance, LFO Modulation, Envelope Modulation, Key Follow, Dynamics Select (Off/1/2/3), Envelope Mode (A, V)
- VCA: Mode (ENV-2, Gate, J, L), Level, Dynamics Select (Off/1/2/3)
- ENV-1: Attack Time, Decay Time, Sustain Level, Release Time, Key Follow (Off/1/2/3)
- ENV-2: Same as the ENV-1
- LFO: Waveform (S, L, T, F, J), Random, Delay Time, Rate
- Chorus: Mode Select (Off/1/2)
- Function: Manual, Write
- Jack: 5-pin DIN
- Dimensions: 255(W) x 219(H) x 215(D)mm (10.4" x 8.6" x 8.5")
- Weight: 680 g (1.5 lb)
- Accessories: 5-pin DIN cable, Carrying case

JX-3P

programmable/preset/polyphonic synthesizer

MIDI MASSACHUSETTS INSTITUTE OF TECHNOLOGY

73.000



A sleek space age instrument, the JX-3P is an exciting mix of sophistication and simplicity. The latest interface technology (MIDI), a Polyphonic Sequencer with Tape Storage, Twelve Digitally Controlled Oscillators, and Sixty-four Patch Memories are only some of the features available on the JX-3P. The JX-3P is so simple to operate that most of its sound parameters can be changed by the same two controls in the Edit section.

Programmable, Preset, and Polyphonic (the three P's) the JX-3P is all these things and more. Combining the versatility of a programmable synthesizer (32 patch memories) and the convenience of a preset (also 32 patch memories), the JX-3P is a six voice polyphonic synthesizer that uses twelve DCO's to achieve the big sound that is so popular.

The Preset section offers a broad vocabulary of musical sounds including the most sought after simulation patches (Strings, Brass, and other acoustic instruments) found in banks A and B of the JX-3P.

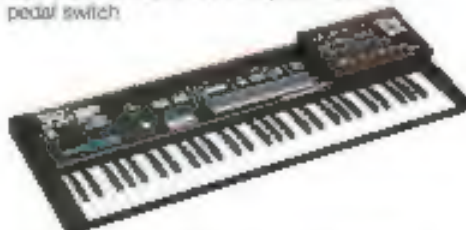
Cross Modulation, which is used to create metallic sounds and Ring Modulator effects, is included on the JX-3P.

Six VCF's, six VCA's, six Envelopes are combined with the extensive Modulation controls to give the JX-3P user all the tools necessary to create that "perfect patch."

Stereo Chorus, External Trigger for the Sequencer, Hold pedal connection, and Key Transpose add professional features to the JX-3P. A superlative performance control section that includes an extra large Bender with three different modes of operation and a separate LFO Trigger Pad are the finishing touches on a versatile performer.

SPECIFICATIONS

- Keyboard: 61 keys (5 octaves, C scale)
- Buttons & Indicators: Bank (A to D), Number (1 to 16), LFO Trig, Chorus, Mute, Hold, Key Transpose, Tape Memory
- Controls: Pitch Bender, Volume, Brilliance
- Switch: Bender range select (Wide/Mid/Narrow)
- Preset voices: Bank A (1 to 16) String I, String II, Organ I, Organ II, Organ III, Brass I, Brass II, Electric Piano I, Electric Piano II, Clavi, Harpsichord, Vibraphone, Chime, Celesta, Accordion, Voice, Bank B (1 to 16) Violin, Flute, Cele, Song Whistle, Synth Brass I, Synth Brass II, Dist Guitar, Juicy Funk, Filter Flow, Fat Filter, Sync Wah, Sync Sweep, Funky Clavi, Pulser, Planet, Jet
- Memory: 32 Patch programmable (battery back-up), Bank C (1 to 16), Bank D (1 to 16)
- Edit section (32 elements, Group A: 1 to 16, Group B: 1 to 16)
- Buttons & Indicators: Group A, Group B, Write
- Control: Sense
- Sequencer section: •Buttons & Indicators: Write, Tap, Rest, Start Stop
- Control: Rate
- Memory capacity: 128 steps (5-voice polyphonic, battery back-up)
- Tape memory: •Sequencer: Save, Verify, Load
- Tone: Save, Verify, Load
- Rear panel: •DIN jacks: Programmer in — 6-pin, MIDI (in, out, through)
- Phone jacks: Output (mono, stereo), Phones, Hold pedal, Seq Trigger in, Tape Memory (save, load)
- Switches: output level (H: 0dBm/L: -10dBm/L: -30dBm), External Instruments select (MIDI BUS, Memory Protect on, Programmer), Power (auto)
- Control: Tune (±50 cent)
- Dimensions: 912(W) × 1150(H) × 325(D)mm (35.9" × 4.53" × 12.8")
- Weight: 9.8 kg (21.6 lb)
- Accessories: Music rest, Connection cable × 2
- Options: KS-2 stand, FV-200 foot volume, CB-JX leatherette case, RH-10 headphones, DP-2 pedal switch



REAR PANEL



16.80

PG-200



The optional PG-200 Programmer is a modular unit that can be used with more than one JX-3P or with other synthesizer products Roland will produce in the near future. The Programmer gives the user simultaneous control over nearly every parameter of sound. Complete with features like Cross Modulation and Programmable Chorus, the PG-200 can be used with the JX-3P to create new sounds for the programmable banks (C and D) and edit the preset banks (A and B).

SPECIFICATIONS

- DCO-1 •DCO-2 •VCF •VCA •Chorus •LFO
- Envelope •Buttons & Indicators: Manual, Write
- Connector (6P DIN) •Dimensions: 244(W) × 450(H) × 172(D)mm (9.6" × 1.8" × 6.8")
- Weight: 1.4 kg (3.08 lb)
- Accessory: 6P DIN cable

JUPITER-6 6-voice polyphonic synthesizer

MIDI

170.000



Designed for the musician who demands the utmost in performance and reliability, the JUPITER synthesizers from Roland are the finest performance oriented polyphonic synthesizers available at any price.

The now legendary Jupiter 8 is joined by the Jupiter 6 to give consumers a choice of features and price bracket. The Jupiter 6 provides two powerful VCO's per voice as well as a depth of control and performance features normally found only on elaborate modular systems.

Benefiting from the ground breaking technology of the Jupiter 8, the Jupiter 6 is more than the little brother of this industry standard. Combinable Waveforms, 32 Patch Preset Pairs, MIDI, and greater control of Modulation parameters make the Jupiter 6 a unique and special instrument.

48 Patch Memories with Cassette Storage (load and dump) insure that the right sound is only a button away. 32 Patch Preset Pairs give the Jupiter 6 user more combinations of split keyboard sounds and these pairs can be changed by means of a DP-2 foot pedal. Should power be interrupted for any reason, a built in battery preserves the data in memory. Cassette interface data is transmitted at around 3,200 bauds so an entire program can be completely recorded in approximately 15 seconds.

A variety of Split Keyboard Modes allow either two voices left and four voices right or four voices left and two right. Four Keyboard Assign Modes including: Poly 1, Poly 2, Unison Solo, and Solo/Unison insure the performer the flexibility to match the style and mood of music that is being played.

Highly reliable digital LFO, ADSR, and Portamento give the user unprecedented accuracy and flexibility in these vital functions.

Auto-Tune insures that all twelve oscillators can be precisely tuned in an instant. A Detune key in the Solo/Unison mode allows up to six different VCO pitches to be detuned for impressive ensemble effects.

The Arpeggio can be used over up to four octaves and in either up, down, or up and down patterns. The Arpeggio can be externally gated for sequencer like lines. Key Follow in the Envelope section is continuously variable giving the user the capability of creating both amazingly real piano sounds and impressive synthesizer effects.

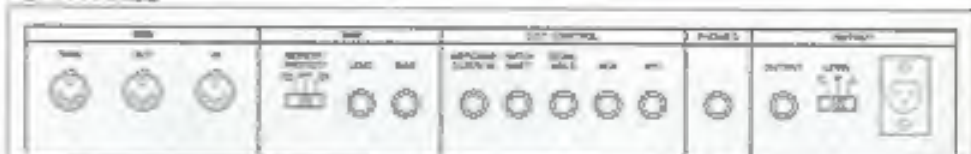
SPECIFICATIONS

•Keyboard: 61 keys (5 octaves, C-scale) •VCO MOD: LFO (10 oct.), ENV-1 (5 oct.), VCO-1 (10 oct.), VCO-2 (10 oct.) •PWM: PW (50%~100%), PWM LFO (45% from PW level, ENV-1 same as LFO) •VCO-1: Range (32~2) in chromatic, Waveform (1~4, FL, FL1, FL2), Ours MOD (ENV-1, manual) •VCO-2: Range (32~2) in chromatic—Special range high 2~5, low 1.5Hz~50Hz, Waveform (1~4, FL, FL1, FL2), reset, Tune (±50 cent) •51140: VCO-1 to VCO-2 (on/off), VCO-2 to VCO-1 (on/off) •Mixer: VCO-1 mix VCO-2 •VCF: Mode (LPF 24dB/oct., BPF 12dB/oct., HPF 24dB/oct.), Cutoff FREQ (5Hz~30kHz), Resonance Peak gain 15dB, ENV (0 oct., ENV-1, ENV-2 select), LFO (10 oct.), KYBD follow (0%~100%) •VCA: Dynamic range 60dB, ENV-2 level, LFO •ENV-1: Attack time (0~15s), Decay time (0~20s), Sustain level (0~100%), Release time (0~20s), Key follow (0~100%) •Polarity (1~4, FL, FL1, FL2) •ENV-2: Same as the ENV-1 except the Polarity switch •LFO: Rate (0.04Hz~100Hz), Delay time (0~2s), Waveform (1~4, FL, FL1, FL2), random, Random special high frequency (100Hz) •Glide: Portamento or glissando, Time (0~1.6s/oct.) •Arpeggio: Rate (1~25Hz), Range (1~4 oct.), Mode (up, down, up & down, down & up) •Assign: Solo, Solo unison, Unison detune ±50 cent, Poly-1, Poly-2 •Hold (upper, lower) •Key mode: Split 4-2, Split 2-4, Whole •Polar mode (upper or lower) •Memory section: Bank (A~F, 6 banks), Number (1~8, 6~8, 48 memories), Patch preset (4 banks, 8~32 preset, manual, write) •Type memory: Load, Verify, Save •Master tune: ±50 cent, Compu tune time (0.3s) •Bender: Lower, On/off buttons (VCO-1, VCO-2), Bend with (3 oct. fixed), VCO SENS (1 oct. variable), VCF SENS (5 oct. variable) •LFO-2: On/off button, VCO SENS (±100 cent), VCF SENS (±4) •Rate (1~10Hz), Rise time (50ms~1s) •Output: volume (master volume), Balance (lower, upper), Cutoff (AMP: 600Ω), Level attenuator (0dB~15dB/±30dB), Phones •EXT controls: Arpeggio clock in, Patch shift, Pedal hold, VCA control (0~±20dB), VCF control (±6~±2 oct.) •Others: Memory protect switch (on/off), Load input, Save output, MIDI (In, Out, Thrx, Spn DIN) •Dimensions: 1060(W) × 1200(H) × 438(D)mm (41.7" × 47.2" × 17.1") •Weight: 16 kg (35.2 lb.)

Options: KS-20 stand (KSA-20: Adapter to allow use of KS-20 with JUPITER-6), FV-200 foot volume, DP-2 pedal switch, TS-8 aluminum case



REAR PANEL



JUNO-106

56.125 848900

programmable polyphonic synthesizer

MIDI



MIDI

The JUNO-106 is a completely new polyphonic synthesizer that accepts all MIDI information. The JUNO-106 features three MIDI jacks on the rear panel—in, Out, and Through—as well as a Function switch used to select the send and receive mode for I KYBD, II KYBD + BENDER + PGM CHANGE, or III ALL. The settings of all front panel controls (LFO, DCO, HPF, VCF, VCA, ENV, and Chorus) can be sent and received using the Exclusive Message in the ALL mode. There are sixteen MIDI channel select buttons on the front panel. Thanks to these superb functions, you can connect the JUNO-106 with any MIDI-equipped synthesizer or sequencer. Several MIDI devices can then be simultaneously controlled using the MIDI through jack. All instrumental parts of a composition can also be performed using the data stored in a computer.

ELEMENTAL PARTS

The JUNO-106, 61-key, 6-voice polyphonic synthesizer is easy to operate and packed with exciting functions. The JUNO-106 features a highly stable DCO, the same kind as used in Roland's famous JX-3P. There are 2 groups (A and B) with 8 banks stored in each group. Each bank stores 8 patches for a total of 128 patch memories. All the LFO, DCO, HPF, VCF, VCA, ENV, and Chorus settings can be memorized.

A cassette interface is provided to allow all program data to be stored on a cassette tape. Since the program data of groups A and B are saved and loaded independently, it can be combined or rearranged as you like. A memory protect switch is provided to prevent the program data from being accidentally erased.

PROGRAM MEMORY

The DCO's waveforms and ranges are selected by touch pads and the PWM, Sub-Oscillator, Noise and LFO controls are adjusted by sliding controls. The tone color is tailored at will by both VCF and HPF. And the VCA has a level slider and ENV/Gate select switch. A Chorus effect is provided to reproduce realistic string or organ sounds. And for the first time in this price class, the JUNO-106 features a portamento function that is effective for both live performances and multi-track recording.



REAR PANEL



SPECIFICATIONS

- Keyboard: 61 keys (5 octaves, C-scale)
- DCO: Waveforms (TL, T, A), Range (18.84%), PWM, PWM mode (LFO/Manual), LFO modulation, Sub-DSC level, Noise level
- HPF: Cutoff frequency (On/Off)
- VCF: Cutoff frequency, Resonance, Key follow (On/100%), ENV modulation, ENV polarity (A, V)
- LFO modulation
- VCA: Control signal (A, T, A), VCA level
- ENV: Attack time (1.5min-3s), Decay time (1.5min-12s), Sustain level (On/100%), Release time (1.5min-12s)
- LFO: Rate (0.1-30Hz), Delay (On/Off)
- Chorus buttons: Off, I, II
- Others: Key transpose, Assign mode (Poly-1/Poly-2), MIDI channel (1-16)
- Controllers: Portamento time, Portamento (on/off), Volume, Bender level, Bender sens (DCO), Bender sens (VCF), LFO trig sens (DCO)
- Memory buttons: Patch number (1-6), Bank number (1-8), Group select (A, B), Manual, Write, Save, Verify, Load
- Multi-Purpose Indicator: 7-segment LED x 2
- Jacks: Outputs (phone x 2), Headphones, Pedal hold (DP-2), Patch shift (DP-2), Save, Load, MIDI input, MIDI output, MIDI through
- Switches on the rear panel: MIDI function (I/O/TH), Memory protect
- Control: Tune (x50 cent)
- Dimensions: 960(W) x 1200(D) x 320(D)mm (38" x 47" x 12.6")
- Weight: 10.0 kg (22.0 lb.)
- Accessory: 2.5m connection cord x 1

TYPICAL SET-UPS

A. JUNO-106 + Other MIDI Keyboards



The JUNO-106 can control another MIDI keyboard. By connecting with its MIDI Thru jacks, the JUNO-106 can also control more than one MIDI keyboards simultaneously. If the keyboards are then set to produce string sounds, a full-bodied sound similar to that of a full orchestra can be obtained.

B. JUNO-106 + MSQ-100



When the JUNO-106 is connected with the MSQ-100 MIDIVCB MULTI-TRACK DIGITAL KEYBOARD RECORDER, the MSQ-100 can memorize the JUNO-106's performance data. If two JUNO-106 units are assigned different MIDI channels when writing performance data into the MSQ-100, the two JUNO-106 units can simultaneously perform two different instrumental parts.

64 375- **SYNTH PLUS-60 (HS-60)** 6-voice polyphonic synthesizer



MIDI Universal Serial Bus (USB)

If you'd like a synthesizer but know next to nothing about connections, set-up, and so on, the Synth Plus 60 is just what you've been looking for. Featuring two built-in speakers, each with 8 watts of power, the Synth Plus 60 allows the user to enjoy synthesizer sounds just by turning on the power switch.

The Synth Plus 60 is a 61-key, 6-voice polyphonic, programmable synthesizer, featuring ultra-stable DCOs. The waveform and range of the DCOs can be selected at the touch of a button. The PWM, Sub-Oscillator level, Noise level, and LFO Modulation are adjusted using sliding controls. The VCF and HPF allow the tone color to be precisely adjusted. The VCA features a sliding level control and ENV/Gate select switch. Chorus circuitry is provided to broaden the sound—especially effective when reproducing organ and string sounds. A Portamento function achieves polyphonic portamento. And a Key Transpose function lets you transpose to any key so that compositions written in a hard-to-play key can be played in your most comfortable key.

Up to 128 patches can be stored in the Synth Plus 60 memory—more than enough for any purpose, from private lessons to recordings and performances. There are two bank groups, A and B, each group storing 8 banks and each bank storing 8 patches. All LFO, DCO, HPF, VCF, VCA, ENV, and Chorus settings can be memorized. Any stored patch can also be modified as desired. A Tape Interface allows all program data to be stored on a cassette tape. And the program data in groups A and B can be saved and loaded independently. It can be combined or rearranged as desired.

A Memory Protect switch prevents accidental erasure of program data.

The Synth Plus 60 is also MIDI compatible. MIDI In, Out, and Thru jacks are provided and the MIDI channel can be freely assigned. A 3-position MIDI Function switch determines which information is to be transmitted over MIDI. In the first position, only key and hold information can be sent and received. In the second position, key, hold, bend, modulation, and program change information can be sent and received. In the third position, an exclusive message can be sent and received as well as all second position information except program change data. (The exclusive message, which carries the information for the patch parameters and the program change information, can only be sent in the third position). For even greater enjoyment, you can connect the Synth Plus 60 to a MIDI system formed by MIDI devices including Roland's MKS series MIDI sound modules, the MSQ-100 MIDI sequencer, and a computer.

Two built-in speakers, each with 8 watts of power, faithfully reproduce the wide frequency range and complex waveforms produced by the Synth Plus 60. When the Chorus effect is engaged, the speakers produce distinctive "stereo chorus" sounds. The loudness of the speakers can also be controlled by an optional EV-5 expression pedal.

SPECIFICATIONS

•Keyboard: 61 keys (5 octaves, C-cleff) •DCO: Waveforms (S/L, /), Range (16/14), PWM, PWM Mode (LFO/Manual), LFO Modulation, Sub-Oscillator Level, Noise Level •HPF: Cutoff Frequency (1/2/3) •VCF: Cutoff Frequency, Resonance, Key Follow (0 to 100%), Envelope Modulation, ENV Polarity (✓, ✓✓)

LFO Modulation •VCA: Control Signal (✓, ✓✓), VCA Level •ENV: Attack Time (1.5ms to 3s), Decay Time (1.5ms to 12s), Sustain Level (0 to 100%), Release Time (1.5ms to 12s) •LFO: Rate (0.1 to 2045), Delay (0 to 3s) •Left-Hand Controls: Portamento Time, Portamento On/Off, Volume, Bender, Bender Sensitivity (DCO, VCF), LFO Trigger Sensitivity (DCO) •Buttons: Chorus (On/Off), Key Transpose, Assign Mode (Poly 1, Poly 2), MIDI Channel (1 to 16), Patch Number (1 to 8), Bank Number (1 to 8), Group Select (A, B), Manual, Write, Save, Verify, Load •Indicators: 7-segment LED x 2 •Speakers: 10cm (8W) x 2 •Rear Panel •Jacks: Output (Mono, Stereo), Headphones, Expression Pedal (EV-5), Pedal Hold (DP-2), Patch Shift (DP-2), Save, Load, MIDI In, Out, Thru •Switches: MIDI Function (3/2/1), Memory Protect (On/Off/On), Output Level Select (0/1dB), Power •Controls: Tune (x 50 cents) •Dimensions: 900(W) x 1000(D) x 34 mm (35.1" x 39.4" x 1.34") •Weight: 15.0 kg (33.0 lb) •Accessories: Music rest

2,960

EV-5



An indispensable device for use with the Synth Plus 60, the EV-5 allows you to add swell expression to music—especially effective for organ and string sounds.

The variable volume range can be freely adjusted using the Minimum Volume control. Made of rugged molded ABS resin, the EV-5 weighs just 400 grams.

SPECIFICATIONS

•Controls: Main Volume (Pedal), Minimum Volume •Dimensions: 80(W) x 140(D) x 200(H) mm (3.1" x 5.5" x 7.9") •Weight: 400g (0.9 lb)

REAR PANEL



SH-101 *monophonic synthesizer*

21.500



The SH-101 Monophonic Synthesizer has brought sophisticated synthesizer features, mobility, and the excitement of color together in a cost effective durable package.

A built-in Digital Sequencer allows automatic playing of up to 100 steps. In addition to the sequencer, the SH-101 can play automated lines with its Arpeggio unit.

The Source Mix is capable of mixing VCO waveforms with Suboscillator and Noise Generator for sound creation beyond the scope of most monophonic synthesizers.

Key Transpose lets the user transpose to any key, so the range of performance is expanded. Octave Transpose can shift the instrument's range one octave up or down. In addition to the conventional Portamento, an Automatic Portamento is provided which operates only during legato passages.

There are CV/Gate Input/Output jacks and an External Clock Input to facilitate a wide variety of interface possibilities.

Two way power supply enables the SH-101 to go anywhere and the optional MGS-1 Modulation Grip gives the performing musician mobility on stage.

SPECIFICATIONS

- Keyboard: 32 keys (F-scale) •VCO: Range (16 1/8' 4/12'), Pulse width modulation (50%~mini, PWM mode switch (ENV/MANUAL/LFO), Modulation depth control, Tune (± 50 cents) •Source mixer: Level controls (VCO, $\sqrt{}$, Sub-oscillator, Noise), Sub-oscillator waveforms (1 oct. down \square 1/2 oct. down \square 1/2 oct. down \square) •VCF: Cut-off frequency (10Hz~20kHz), Resonance (0~self-oscillation), ENV depth, MOD depth, Key follow (0~100%) •VCA: Control signal select switch (ENV $\sqrt{}$, GATE \square) •ENV: Attack (1.5ms~4s), Decay (2ms~10s), Sustain (0~100%), Release (2ms~10s), Gate trigger select switch (GATE + TRIG/GATE/LFO) •Modulator: LFO/CLK rate (0.1Hz~30Hz), LFO/CLK rate indicator, Waveforms ($\sqrt{}$ / \square / random noise) •Controls: Volume, Portamento (Time: 0~3s, Mode switch: Auto/porta), Octave transpose (1/M/4), Bender sensitivity (VCO, VCF), LFO MOD depth, Bender lever (LFO MOD switch) •Sequencer (100 steps max): Buttons & indicators (Load, Play) •Arpeggio: Buttons & indicators (Up, U & D, Down) •Others: Buttons & indicators (Hold, Key transpose), Switch (Power on/off), Indicator (Power) •Jacks: Output (0dBm max), Headphones (Stereo 8 Ω ~150 Ω), CV output (1V/oct., 0.415V~5V), Gate output (Off: 0V, On: 12V), CV input (1V/oct., 0~7V), Gate input (On at +2.5V over), Hold, External clock input (Step at more than +2.5V pulse), DC input (9V~12V), Modulation grip in
- Power supply: DC 9V (UM-2 \times 6 or PSA series adapter) •Dimensions: 570(W) \times 820(H) \times 311(D)mm (22.4" \times 3.15" \times 12.2") •Weight: 4.1 kg (9.02 lb.) without batteries •Accessories: 2.5m connection cord, BR-2 \times 6
- Options: PSA series AC adapter, BR-2 (UM-2) drycell batteries, PGB-4 (miniplug \rightarrow standard plug) cord, SC-101 soft case

PSA series AC adapter



MGS-1 *modulation grip set*

3000



The MGS-1 allows the keyboardist have the same mobility on stage that guitarist and other instrumentalists have enjoyed. When the MGS-1 is used, the Bender and LFO functions can be controlled at a single touch.

The Bender is used in the same way a guitarist bends a string and only functions in the upward direction. The degree of pitch bend is controlled by the Bender Sensitivity switch. The Bender on the SH-101 can be used in conjunction with that of the MGS-1. When the LFO button is pressed, LFO waveform modulation of the VCO and VCF occurs. This produces a choking and vibrato effect.

- Contents: MG-1 (Modulation Grip) \times 1, Strap \times 1, Snap pins \times 2



EP-50 *electronic piano*

MIDI Music Industry
Instrument
Digital Interface

46.000



Roland's new EP-50 electronic piano is fully MIDI compatible and features a full-sized 76-key, touch-sensitive keyboard. It can be used either as an ordinary electronic piano or as a keyboard controller for other MIDI instruments. In any situation, from on-stage performance to jamming or home recording, the EP-50's exquisite sounds will enchant you as its MIDI compatibility maximizes the performance of your MIDI system.

The EP-50 features a 76-key, touch-sensitive keyboard. Any change in your touch affects the sound, from the subtlest pianissimo to the most powerful fortissimo.

The EP-50 features MIDI In, Out, and Thru jacks. It can also send and receive MIDI program change, key, and velocity information. The MIDI channel can be freely assigned, too. The EP-50 can be used as an 8-voice polyphonic MIDI keyboard controller for other MIDI sound-producing units, including Roland's MKS MIDI sound modules. Or it can be used as a piano sound source for a MIDI sending unit such as a MIDI sequencer or computer.

The EP-50 offers one Harpsichord and three Piano sounds. All sounds can be recalled at the touch of a button. A Chorus effect is provided to broaden the sound. And the sustain effect can be controlled by connecting the accessory DP-2 pedal switch.

A Key Transpose function is provided so that you can transpose to any key you desire. Two built-in speakers, each with 4.5 watts of power, project stunning sounds. The volume is adjustable and the speakers can be turned off if you don't need them. Headphones can also be connected. You can play the EP-50 any time, day or night, without disturbing others. External amplification such as a keyboard amplifier or hi-fi system can be connected to the Output jacks to increase the volume.

The Stereo Input jacks allow a stereo device, such as a cassette tape recorder, to be connected.

Light, compact, and easy to carry, the fully electronic EP-50 never needs to be tuned.

SPECIFICATIONS

•Keyboard: 76 keys •Buttons: Transpose, Piano I, Piano II, Piano III, Harpsichord, Chorus, MIDI Control •Controls: Volume, Tune I x 35 cents •Switch: Monitor On/Off •Rear Panel: Jacks (input x 2, Output x 2, Headphones, Damper Pedal, MIDI In, MIDI Out, MIDI Thru), Output Level Select Switch (L/M/H) •Speakers: 16cm (4 SW) x 2 •Dimensions: 1,132 (mm) x 1,040 (mm) x 368 (mm) (45.4" x 41" x 14.5") •Weight: 15.0 kg (33.0 lb) •Accessories: Music rest, DP-2 pedal switch



REAR PANEL



MIDI INTERFACE SERIES

MPU-101 MIDI to CV Interface

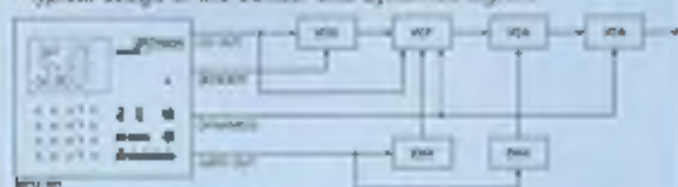
19.600

MIDI



TYPICAL SET-UP:

- Typical usage of the bender and dynamics signals



- To control a percussion sound source and sampling machine by the gate signals



The MPU-101 converts MIDI data into analog signals. Connecting the MPU-101 to a MIDI sending unit, up to four conventional 1-volt/octave CVgate synthesizers can be controlled by MIDI data.

The MPU-101 has four output channels, each with pitch control voltage, gate signal, and dynamics control signal outputs. There are also control voltage outputs for bender, modulation, after touch, and volume. Voltage-controlled devices other than synthesizer, including lighting equipment, can also be controlled. And the gate signals can also be used as trigger signals to control other devices.

The MIDI channel can be assigned to one of 1 to 16. A MIDI Out jack is provided in addition to the MIDI In and Thru jacks. Up to 8 CV synthesizers can be controlled by combining two MPU-101's.

Five operation modes are provided for a variety of applications.

1. Mono Mode: Four CV synthesizers can be controlled by MIDI data transmitted on four different MIDI channels.
2. 2-Voice Mode: MIDI data for up to two notes is converted into CVgate signals and comes through outputs 1 and 2.
3. 3-Voice Mode: MIDI data for up to three notes is converted into CVgate signals and comes through outputs 1, 2, and 3.
4. 4-Voice Mode: MIDI data for up to four notes is converted into CVgate signals and comes through outputs 1, 2, 3, and 4.

When the connected MIDI sending unit is in the poly mode, three different assign modes are accessible; then the MIDI key information can be assigned to four outputs in three different ways. An Octave Transpose function simultaneously shifts the pitch control voltage of four CV outputs one octave up or down.

SPECIFICATIONS

•MIDI Channel Selector: 1 to 16 •Octave Transpose: LHM •Assign Mixer: VSB •Operation Modes: Mono, 2-Voice, 3-Voice, 4-Voice, Special •HOLD: Enable/Disable •Clear: Push On •Tune: On/Off Switch, Control (±100 cents) •Output Jacks (bent): CV (−3 to +7.58V) × 4, Dynamics (0 to +10V) × 4, Gate (0 to 0V) × 4, Bender (−1 to +10V), Modulation (0 to +10V), After Touch (0 to +10V), Volume (0 to +10V) •Indicators: Power, Gate × 4, Hold, Operation Mode × 5 (Mono, 2-Voice, 3-Voice, 4-Voice, Special) •MIDI Jacks: In, Out, Thru •Dimensions: 226(±0.5) × 89(±0.5) × 206(±0.5) mm (8.9" × 3.2" × 8.1") •Weight: 2.1 kg (4.6 lb) •Accessory: 1.5m MIDI cable



13.600

MPU-103 MIDI Channel Filter/Converter

MIDI



TYPICAL SET-UP

- Reassignment of the MIDI channel



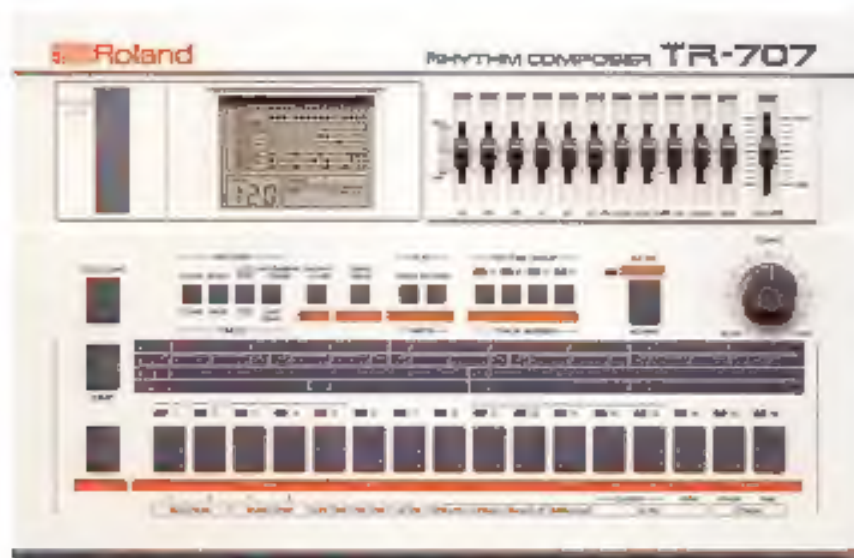
The MPU-103 MIDI Channel Filter/Converter reassigns the MIDI channel: it accepts MIDI data transmitted on the MIDI channel selected by the Filter switch, then sends that data on the MIDI channel selected by the Converter switch.

MIDI data other than key information can be eliminated using the Key Event Only switch. A MIDI indicator lights when the MPU-103 accepts MIDI data.

SPECIFICATIONS

•Switches: Filter Channel Select, Converter Channel Select, Converter On/Off, Key Event Only On/Off •Indicators: MIDI, Power •MIDI Jacks: In, Out, Thru •Power Source: DC 9V by PSA series AC adapter •Current Draw: DC 9V, 200 mA •Dimensions: 216(±0.5) × 89(±0.5) × 167(±0.5) mm (8.5" × 3.2" × 6.6") •Weight: 100g (2.2 lb) •Accessory: AC adapter (PSA series)





SOUND SOURCES

The TR-707 offers twelve different drum sounds—two Bass Drums, two Snare Drums, Rim Shot, Low, Mid, and High Toms, Open and Closed Hi-Hats, and Ride and Crash Cymbals. In addition, it also offers three different percussion sounds to form a complete rhythm section—Cowbell, Hand Clap, and Tambourine. These fifteen sounds have been digitally recorded by means of Pulse Code Modulation (PCM). All sounds have a high signal-to-noise ratio, a broad dynamic range and are extremely clear and realistic. Individual level sliders are provided for each sound. The volume balance between each sound can be easily adjusted and confirmed at a glance. Two accent levels can be programmed. The accent level can be varied even during performance using the Accent slider. An output jack is provided for each sound so that you can tailor each sound as desired using sound processing units.

MEMORIES

The TR-707 can store 64 rhythm patterns (16 patterns in 4 groups) and rhythm chains of up to 999 measures (in 4 tracks). It also has a tape interface for data storage on a cassette tape. An optional M-64C memory cartridge is also available. The cartridge has two banks. Each bank can store up to 64 rhythm patterns and rhythm chains of up to 999 measures. Thus, the M-64C provides memory as large as two TR-707's. The memories in the TR-707 and M-64C two banks can be freely selected. The TR-707 offers plenty of rhythmic variations for both recording and performing.

DISPLAY

The TR-707 has a large, easy-to-see liquid crystal display. The display shows you the rhythm pattern, programming mode, track number, measure number, tempo, and MIDI channel. The display allows even beginners to easily program rhythm patterns that would be difficult to program on other drum machines. Any intricate rhythm pattern can be quickly and accurately programmed.

PROGRAMMING

The TR-707 features two programming modes—real-time and single step. In the real-time mode, you can program rhythm patterns by tapping the sound buttons the same way you play a drum. In the single-step mode, you can program one sound at a time step-by-step. Unlike those of other drum machines, these two programming modes can be changed even while programming. This allows quick, accurate programming. For example, when you wish to program a rhythm pattern with complex hi-hat and snare patterns and with simple bass drum pattern. Program the hi-hat and snare patterns in the single-step mode, and program the bass drum pattern in the real-time mode. In the real-time mode, a metronome can be activated at the touch of a button. "Shuffle" and "Flam" can also be programmed.

MIDI

The TR-707 is MIDI-compatible. Connecting a velocity-sensitive MIDI keyboard to the TR-707, all TR-707 sounds can be dynamically controlled from the keyboard with 128 levels of loudness. Each sound can be assigned to a desired key. Dynamic, expressive drum playing can be performed directly from a keyboard. And by connecting a MIDI sound-producing unit to the TR-707, other sounds can be added.

OTHERS

The TR-707 has a Sync-24 jack to sync with another Sync-24 device. It also outputs a Rim Shot trigger signals that control an external device. The Tape Sync function allows the TR-707 to be synced with a multi-track recorder. The TR-707 can be started and stopped by pressing the DP-2 foot switch. A headphone jack is also provided for easy monitoring.

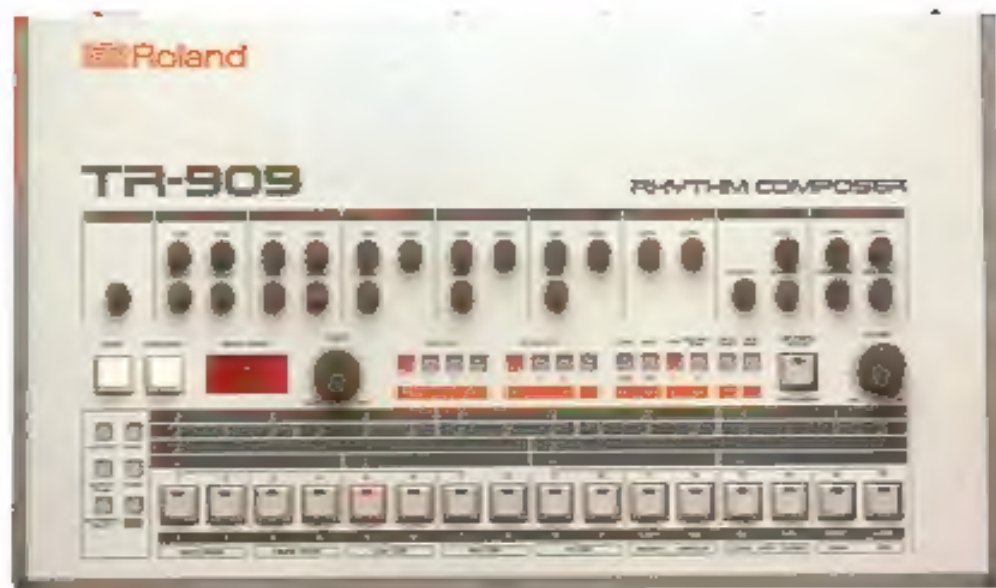


SPECIFICATIONS

- Sound sources: Digitally recorded (PCM) sound sources: Bass Drum 1, Bass Drum 2, Snare Drum 1, Snare Drum 2, Low Tom, Mid Tom, High Tom, Closed Hi-Hat, Open Hi-Hat, Ride Cymbal, Crash Cymbal, Hand Clap, Tambourine, Rim Shot, Cowbell
- Programming modes: Single-Step, Real-Time
- Memories: 64 rhythm patterns, Up to 999 measures of rhythm chain (in all 4 tracks)
- Programmable functions: Shuffle, Flam, Accent
- Master outputs: Right/Mono, Left
- Multi-outputs: Bass Drum, Snare Drum, Low Tom, Mid Tom, High Tom, Hi-Hat, Ride Cymbal, Crash Cymbal, Hand Clap/Tambourine, Rim Shot/Cowbell
- MIDI jacks: In, Out
- Sync-24 jack: In/Out
- Tape interface jacks: Save/Sync Out, Load/Sync In
- Others: Remote jack (Start/Stop), Trigger Out jack (Rim Shot), RAM Cartridge slot (for M-64C), Headphone jack
- Controls: Tempo, Accent, Volume, Sound-Source Level
- Liquid Crystal Display: 1
- Dimensions: 300(W) x 75(H) x 250(D)mm (15.0" x 3.0" x 9.8")
- Weight: 1.5 kg (3.3 lb)
- Accessories: AC adapter, Connection cord



TR-909 *rhythm composer*



96 rhythm patterns can be memorized—48 patterns in each of two banks.

There are two banks, each having four tracks for storing programmed rhythm chains of up to 896 measures.

Eleven kinds of sound sources—Bass Drum, Snare Drum, Low Tom, Mid Tom, High Tom, Rim Shot, Hand Clap, Closed and Open Hi-hat, and Crash and Ride Cymbals. Several controls such as Tune or Level are provided for each sound sources. You can accurately tailor their sound. A Shuffle function and Flare effect are also provided to create full variety of drumming.

There are two loading modes. In the real-time mode, you can create rhythm patterns by tapping the sound source buttons to the rhythm. In the single-step mode, you can program a rhythm pattern by writing each sound source in the each step.

A large LED display indicates the measure number and tempo in numerical number.

A tape interface is provided for data storage on cassette tapes.

In addition to the Master Output, each sound source can be outputted separately using Multi-Output jacks.

Three MIDI jacks are provided—two for output and one for input. They allow the TR-909 to be connected with other MIDI devices to synchronize or to use external sound sources. Or, the TR-909 can be controlled by the device connected to it. This allows you to create complex, sophisticated drumming.

The TR-909 has a Sync-24 jack for synchronized performance. It can be started or stopped by the optional DP-2 foot switch. It also generates the Rim Shot trigger to control an external device.

The use of an M-64C memory cartridge doubles the memory capacity of the TR-909 for the rhythm patterns and rhythm chains.

SPECIFICATIONS

- Number of memorizable rhythm patterns: 96 patterns—48 patterns × 2 pattern groups × 2 banks (Bank I, II)
- Number of tracks: 4 tracks (continuous max 896 measures) × 2 banks (Bank I, II)
- Number of steps: 1~16 steps
- Sound Sources (controls): Bass Drum* (Level, Tune, Decay, Attack), Snare Drum* (Level, Tune, Tone, Snappy), Low Tom* (Level, Tune, Decay), Mid Tom* (Level, Tune, Decay), High Tom* (Level, Tune, Decay), Rim Shot (Level), Hand Clap (Level), Closed/Open Hi-hat (Level, Decay), Crash Cymbal (Level, Tune), Ride Cymbal (Level, Tune) *marked sound sources can be accentuated independently
- Master Output: L, R/Mono (6 Vb-p, 1kΩ)
- Multi-Outputs: Bass Drum, Snare Drum, Low Tom, Mid Tom, High Tom, Rim Shot, Hand Clap, Hi-hat, Crash, Ride
- MIDI Jacks: Input × 1, Output × 2
- Tape Memory/Sync Jacks: Save/Out, Load/In
- For EXT control: Trigger Out Jack (Rim Shot: +14V, 20 ms pulse) Start/Stop Jack (DP-2), Sync-24 (5-pin DIN), RAM Cartridge Slot (M-64C only)
- Dimensions: 486(W) × 105(H) × 300(D)mm (19 1/8" × 4 1/8" × 11 8/16")
- Weight: 4.5 kg (9.9 lb)
- Accessories: Power cord, Connection cord



RHYTHM MACHINES

TR-606 *drumkit*



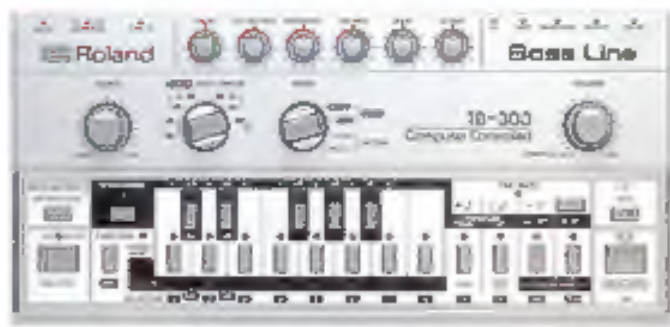
The TR-606 offers 7 drum sounds, all with individual level controls. It can also store up to 32 rhythm patterns with programmed accents. There are 8 tracks. Tracks 1 to 7 store rhythm chains up to 64 measures long. The 8th track stores rhythm chain up to 256 measures long. Step programming allows even beginners to easily program any rhythm pattern.

Sync-24 and Trigger Out jacks are also provided. And headphones can be connected to create music anywhere, anytime.

SPECIFICATIONS

•Sound sources: Snare Drum, Snare Drum, Low Tom, High Tom, Cymbal, Open Hi-Hat, Closed Hi-Hat, Accent. •Number of memorizable rhythm patterns: 32 (16 × pattern groups 1, 2). •Number of tracks: 64 measures × 7 tracks, 256 measures × 1 track. (Continuous: max 256 measures). •Number of steps per measure: 1 to 16. •Jacks: AC Adapter, Output, Headphones, Trigger Out × 2 (High Tom, Low Tom, Hi-Hat, 20 ms pulse), Sync-24 (In/Out), Run/Stop (DP-2). •Switch: Sync-24 mode select (In/Out). •Power: Batteries (UM-2 × 4), AC Adapter. •Dimensions: 300(W) × 55(H) × 145(D)mm (11.8" × 2.17" × 5.75"). •Weight: 1.0 kg (2.2 lb). •Accessories: Soft carrying case, Connection cord.

TB-303 *bass line*



The TB-303 covers three full octaves. Instead of strings, you use keys to program bass patterns. Up to 64 patterns can be created for use anytime. And, like a bass synthesizer, you have full control over resonance, envelope modulation and other important factors influencing sound quality.

When used with the TR-606, you can play bass and drum patterns at the same time. Completely portable, the TB-303 runs on either battery or AC adapter and comes equipped with its own carrying case. A headphones jack is also provided as standard.

SPECIFICATIONS

•Number of memorizable patterns: 64. •Programmable functions: Pitch, Note length, Accent, Slide, Order of patterns, Shift of patterns, 0.5, 1, 2. •Number of steps per quarter note: 4 (1/4) or 2 (1/2). •Number of steps per measure: 16 (1/16) or 15 (1/8). •Number of tracks: 64 measures × 7 tracks (Continuous: max 256 measures). •Register: 3 octaves (4 octaves in the track writing mode). •Jacks: AC Adapter, Output, Headphones, Gate Out (On: On, Off: Off), CV Out (1 to 16 × 5V, 1V/oct), Sync-24 In, Mix In (impedance: 10kΩ, unity gain). •Switch: Waveform Select (1, 2, 3, 4). •Power: Batteries (UM-2 × 4), AC Adapter. •Dimensions: 300(W) × 55(H) × 145(D)mm (11.8" × 2.17" × 5.75"). •Weight: 1.0 kg (2.2 lb). •Accessories: Soft carrying case, Connection cord.

CR-8000



The Roland Compu-Rhythm CR-8000 is ideal for the casual musician. The unit has twenty-four different Basic Rhythm Patterns and eight types of presets of Intro/Fill-in Rhythm Patterns. In addition, the CR-8000 has eight Programmable sections for Basic Rhythm and four Programmable sections for Intro/Fill-in Rhythm.

You can easily create your own rhythm patterns. Furthermore, the CR-8000 has Trigger Out to control external sequencer or synthesizer. In addition, the Syncro-In/Out section of the CR-8000 allows it to be synchronized perfectly with units such as the Roland MC-202 Micro Composer.

SPECIFICATIONS

•Preset rhythms: Waltz, Swing 1, Swing 2, 5, Rock, Tango, Habanera, Enka, BD-4, Rock 1 to 6, Disco, Fox Trot, Samba 1, Samba 2, Merengue, Mambo, Chacha, Rumba, Beguine, Bossanova. •Sound sources: Snare Drum, Snare Drum, Low Tom, Hi Tom, Hi-Hat, Open Hi-Hat, Cymbal, Rim Shot, Low Conga, Mid Conga, Hi Conga, Cowbell, Claves, Handclap, Intro/Fill-in. •Preset 1 to 8, Program 9 to 12. •Intro/Fill-in Measures: Off, 16, 12, 8, 4, 2. •Arranger: CY-4, CY-5, HH-4, HH-16, Open Hi-Hat, Conga, Handclap, Shuffle. •Jacks: Output (load impedance: 8kΩ or less, level: 4Vp-p at 10kΩ), Trigger Output (15V, 10 ms pulse), Remote Control (Start/Stop, Restart, Intro/Fill-in, Register), Sync-24. •Switches: Trigger Pulse select (8, 16, ACC), Sync-24 mode select (In/Out). •Tempo Display: 1. •Dimensions: 331(W) × 108(H) × 278(D)mm (13.0" × 4.25" × 11.0"). •Weight: 3.7 kg (8.1 lb). •Accessory: 2.5m connection cord.

CR-5000



A high-performance preset rhythm machine, the CR-5000 is identical to the CR-8000 with the exception of a memory function. Designed for users who want simple control of a wide variety of rhythms, the CR-5000 has 24 basic rhythms and 8 Intro/Fill-in rhythm patterns. Preset rhythms can be modified by adding various voices that are available in the Arranger section of the CR-5000. Hi-hat and cymbal voices can be added to any rhythm and the basic feel of the rhythms can be altered by use of the Shuffle function. A Crash cymbal sound can be added to the end of an Intro/Fill-in as well.

SPECIFICATIONS

•Preset rhythms: Waltz, Swing 1, Swing 2, 5, Rock, Tango, Habanera, Enka, BD-4, Rock 1 to 6, Disco, Fox Trot, Samba 1, Samba 2, Merengue, Mambo, Chacha, Rumba, Beguine, Bossanova. •Sound sources: Snare Drum, Snare Drum, Low Tom, Hi Tom, Hi-Hat, Cymbal, Rim Shot, Low Conga, Mid Conga, Cowbell, Claves. •Intro/Fill-in: 1 to 8. •Intro/Fill-in Measures: Off, 16, 12, 8, 4, 2. •Arranger: CY-4, CY-5, HH-4, HH-16, Open Hi-Hat, Conga, Shuffle. •Jacks: Output (load impedance: 8kΩ or less, level: 4Vp-p at 10kΩ), Trigger Output (15V, 10 ms pulse), Remote Control (Start/Stop, Restart, Intro/Fill-in, Register). •Switch: Trigger Pulse select (8, 16, ACC). •Tempo LED indicator: 1. •Dimensions: 331(W) × 108(H) × 278(D)mm (13.0" × 4.25" × 11.0"). •Weight: 3.7 kg (8.1 lb). •Accessory: 2.5m connection cord.

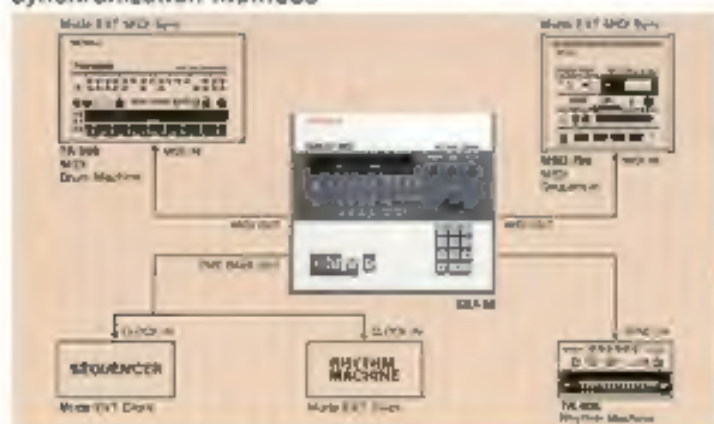


The SBX-80, an epoch-making programmable tempo controller, can even synchronize electronic instruments that employ different synchronization methods. It can read and generate SMPTE time code, the most popular time code used worldwide in professional broadcasts, recordings, and film work. The SBX-80 also generates MIDI, Sync-24, and Time Base signals. The Time Base can be selected from 1, 2, 3, 4, 12, 24, 48, 96, or 120 clock pulses per quarter note. The SBX-80 will prove essential not only in musical productions, but also in video and film productions.

For instance, if SMPTE time code is recorded on an empty track of taped music and tempo data is programmed into the SBX-80, all slave instruments will be automatically synchronized with the taped music as it is played back. The SBX-80 is also indispensable in synchronizing taped music with video pictures that must be played within a certain time, such as TV commercials.

Tempo can be controlled by the Tempo knob, numerical pads, by tapping the Tap switch, or by the click signals from an audio source. It is also possible to program the tempo data for a whole production. A large display shows all the data required, including tempo value and time. The Edit function allows the programmed data to be edited and modified at will. A Tape Interface allows programmed data to be stored on a cassette tape.

Synchronization of instruments using different synchronization methods



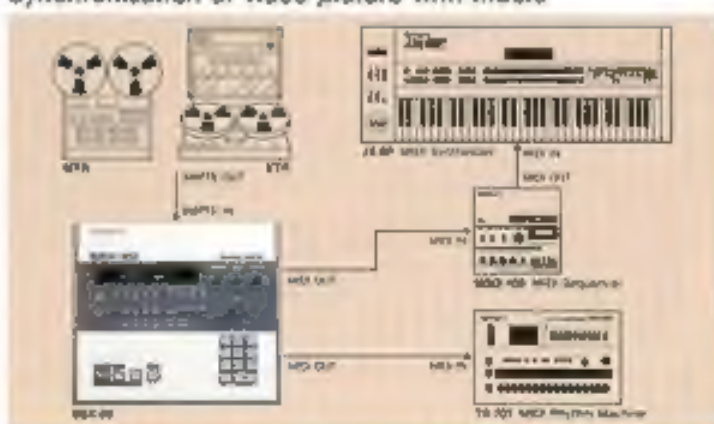
All connected instruments are controlled by the tempo data stored in the SBX-80 or by the MIDI data transmitted through the MIDI in jack of the SBX-80. The Time Base can be selected from 1, 2, 3, 4, 12, 24, 48, 96, or 120 clock pulses per quarter note.



SPECIFICATIONS

- Memory capacity: up to 3967 beats (Number of maximum memorizable measures: 999 in 4/4, 999 in 3/4. Playing time at the tempo of 120 beats per minute: Approx. 33 minutes in 4/4, Approx. 25 minutes in 3/4) •Touch response switch: Quick/Medium/Slow •Buttons: Start/Tap, Sub, Stop/Cont.
- Numerical pads: 0 to 9, Enter •Switches: Display Select, Set * 5, SMPTE Offset, Total Time, Beat Backward, Beat Forward, Manual, Play, Record, Count In, Time Sign, Tape, Edit, Copy/Doing End, Delete, Insert/Bar Line, Repeat, SMPTE Source (EXT/INT) •Controls: Tempo (1 to 250), Metronome Level, Audio In Level •Time Base select switch: 1, 2, 3, 4, 12, 24, 48, 96, or 120 clock pulses per quarter note •Remote jacks: Start, Stop/Continue •Input jacks: Audio In (Level: -20dBm, Impedance: 30kΩ), SMPTE/Line (Transfer rate: 2,400 bauds at 30 Fm, 2,000 bauds at 25 Fm; Level: 1.0 to 1.5 Vp-p)
- Output jacks (Level): SMPTE/Save (1.5 Vp-p), Time Base (0 to 5V), Metronome (1 Vp-p max) •MIDI jacks: In, Out * 2 •Sync-24 jacks: Out * 2
- Dimensions: 325(W) x 107(H) x 320(D)mm (12.8" x 4.2" x 11.8") •Weight: 1.5 kg (7.7 lb) •Accessories: 2.5m MIDI cable, Connection cord

Synchronization of video picture with music



First record the SMPTE time code generated by the SBX-80 on both the VTR and MTR. Then reload into the SBX-80 the SMPTE time code stored in either the VTR or MTR. This programs the tempo. The MSO-100 stores the performance data that in turn controls the J6-BP. When the VTR or the MTR is started, all instruments connected to the SBX-80 will be synchronized.

SEQUENCERS

MSQ-100

MIDI digital keyboard recorder



The MSC-100 has a memory capacity of up to 6,100 notes and can also memorize other information required for musical performance, such as key velocity, key pressure, or tender operation.

The MSQ-100 features two loading methods—real-bay loading (4/4 or 3/4) and step loading (2, 2, 2, 2, 2 or 2). Both methods can be combined according to your needs.

In the real-time mode, overgubbing is possible. You can write new data over the previously loaded data as many times as you like. It is also possible to overdub only one measure.

The MIDI channel shift function allows you to change MIDI channel to another MIDI channel as the MIDI data is loaded. For example, using an instrument whose MIDI channel is assigned to channel 1, you can load performance data to control an instrument whose MIDI channel is assigned to another channel.

Several edit functions allow you to easily change the loaded data as desired.

- **Forward/backward measure:** shifts the data one measure forward or backward.
- **Copy:** the data in one measure is copied.
- **Erase:** all the data stored during and after the assigned measure is erased.

Insert: data the length of one measure is inserted between the previously loaded data.

- **Delete:** erases the data for one measure.
 - **MIDI channel erase:** when data is loaded by means of overdubbing, the data stored during and after the assigned measure of one MIDI channel can be erased or modified.
 - **Tempo check:** only the metronome operates.
- The MSQ-100 offers no memorized data. This function allows you to adjust the tempo of the MSQ-100 using only the metronome sound. This is especially convenient for live performances.

A liquid crystal display indicates remaining memory capacity, MIDI channel, edit mode, etc.

In addition to the MIDI jacks, the MSQ-100 has Sync-24 In and Out jacks to synchronize with any device that has a Sync-24 jack, such as the Roland TR-808 Drumatic, the TB-303 Bass line, or the MC-202 MicroComposer.

A tape interface allows data to be stored on a cassette tape.

The MSC-100 can be started and stopped using the optional DP-2 pedal switch.

The function switch located on the rear panel determines whether performance data (key velocity information, bend/control change information, or after touch information) is received or not to accommodate the sound producing capability of the connected instrument. For example, when an instrument that can't respond to the key velocity information is connected with the MSQ-100, turn the Key Velocity switch off. This operation also saves memory space, as the key velocity data isn't memorized by the MSQ-100 in this case.

Thanks to its light weight and compact body, the MSQ-100 is easy to carry and can be placed virtually anywhere.



SPECIFICATIONS

- Memory capacity: Approx. 6,100 single notes without key velocity • 48 steps
- Switches: Play Only, Load/Play, Data Transfer • Clock switch: INT/MIDI/SYNC
- Tempo control: 1 = 35 to 240 • Metronome level switch: High/Low/Off
- Controls: Load button, Reset/Verify button, Stop/Shift button, Play/Save button, Repeat Play/MIDI/Tape button, Back Measure/Back Step • Copy button
- Forward Measure/Forward Step • Erase button, Tie/Load Measure/Insert button, Rest/Display/Delete button, Measure End/MIDI Channel Shift/Tempo Check button • Load modes: Real-time (4/4, 3/4, Overbust, Step 1)
- Liquid crystal display: 1 • Function switches: Metronome Start, Key Velocity (on/off), Bender/Control Change (on/off), After Touch (on/off), MIDI Out (Mix Out/Int Only), MIDI Out/Thru (Out/Thru), Tape Save Level (L/H), Tape Load Mode (1/2) • Jacks: Tape Load, Tape Save, MIDI In, MIDI Out, MIDI Out/Thru, Sync-24 In, Sync-24 Out, Start/Stop (DP-2), DC In • Dimensions: 226(W) x 57(H) x 225(D)mm (9.0" x 2.2" x 8.8") • Weight: 1.8 kg (4.0 lb.)
- Accessories: AC adapter (IPSA-100), MIDI/Sync cable (1.5m) x 2

MSQ-700 MIDI/DCB multi-track digital keyboard recorder



The MIDI-compatible MSQ-700 accepts all MIDI information, including pitch, velocity, MIDI channels, Patch memory changes, Hold function, and Bender operation, and reproduces all the data faithfully.

A DCB connector allows connection with a DCB synthesizer such as JUPITER-8 and JUNO-60.

Up to 6,500 notes can be stored in the 8 memory tracks. Tracks can be performed in any order by the chain function and several can be loaded simultaneously by the multi-track function. Track-down (condensing data from several tracks onto one track) can be done by the Merge function. Overdubbing is also possible.

The memory capacity of each track can be varied according to need. Two loading modes are provided—single-step and real-time. The time value of notes can be altered even after they're loaded by the time correct function.

Data such as remaining memory capacity, length, and measure number are digitally displayed.

High-speed cassette interface allows data to be stored on cassette tapes.

A battery protects the memory, even during power interruptions.

In addition to the MIDI and Sync-24 synchronizations, the MSQ-700 features a Tape Sync function to allow synchronization with a multi-track recorder.

SPECIFICATIONS

•Maximum memory capacity: Approx. 6,500 notes (in all 8 tracks) •Modes: Chain, Normal, Tape •Clock: Internal, Tape, Sync, MIDI •Display: Measure, Chain, Note, Tempo, Status •Number of tracks: 8 tracks •Loading modes: Real Time/Step •Beat: Free, 1 to 6, 8 •Resolution: 1/32, 1/24, 1/16, 1/8, 1/4, 1/2 •Tempo: ♩ = 25~250 •Metronome Switch: On, Load/Play, Off •Preset Power: EXT Control jacks (Start/Stop, Punch In, Sync-24 In/Out Jacks (5-pin DIN), Tape Sync Jacks (Load/In, Save/Out), Memory Protect On/Off Switch •Dimensions: 328(W) x 108(H) x 328(D)mm (13.3" x 4.25" x 12.9") •Weight: 5.0 kg (11.0 lb) •Accessories: DCB cable (3 m) x 1, 5-pin DIN cable (2.5 m) x 2

JSQ-60 DCB digital keyboard recorder



The JSQ-60 is a polyphonic sequencer connectable with DCB synthesizers such as the JUNO-60 or JUPITER-8.

Due to its large memory capacity of approximately 2,000 notes, the JSQ-60 can memorize a complete musical composition.

The JSQ-60 can also memorize changes in the patch memory of the JUNO-60 or changes in the patch preset pairs of the JUPITER-8.

The JSQ-60 is capable of both real-time and single-step loading. In the real-time mode, all performances played by the keyboard are loaded. And in the single-step mode, the pitch of each note is loaded in each step.

While listening to previously loaded performances, you can overdub up to three times in real time.

Shifting the JUNO-60's patch memory and the JUPITER-8's patch preset pairs and starting/stopping the JSQ-60 can be controlled by the DP-2 pedal switch.

A cassette interface is provided for limitless data storage.

Two Sync-24 out jacks are provided to sync with devices such as the TR-606 Drumatrix or TB-303 Bass line.

Easy to carry. Only 1.5 kg in weight!

SPECIFICATIONS

•Memory capacity: 8 K byte (approximately 2,000 single notes) •Loading methods: Real-time loading, Step loading •Memory load LEDs: 25%, 50%, 75%, 90%, FULL •Tempo: ♩ = 40~200 •Metronome level: High, Low, Off •Jacks: DCB (including a cable), Tape load, Tape save, Sync-24 out x 2, Patch shift out, Patch shift in (DP-2 or + trigger), Start/Stop (DP-2 or + trigger), DC 9V (PSA series AC Adapter) •Dimensions: 226(W) x 57(H) x 220(D)mm (8.9" x 2.24" x 8.67") •Weight: 1.5 kg (3.3 lb) •Accessory: PSA AC Adapter x 1